it the amœboid body of the Rhizopods moves slowly. There are sometimes more than twenty of these Rhizopods upon the same *Cancerilla*.

In its general character *Cancerilla tubulata* approaches *Ascomyzon echinicola*, Norm., a parasite of *Echinus esculentus*, and *Asterocheres Lilljeborgii*, Boeck, a parasite of *Echinaster sanguinolentus*. The structure of its buccal armature is intermediate between that of the Pœcilostoma and Siphonostoma, and seems to show the artificiality of those two groups. The families Lichomolgidæ, *Kossm.* (Sapphirinidæ, *Brady*), Ascomyzontidæ, *Boeck* (Artotrogidæ, *Brady*), Bomolochidæ, *Claus*, and Ergasilidæ, *Claus*, should be united into a single group, for which the name Corycæidæ may be retained, as already proposed by Della Valle for the Lichomolgidæ. That author, however, goes too far when he unites under the genus *Lichomolgus* forms of Copepoda parasitic upon Cœlenterata, Gymnotoca, and Tunicata, for which, as for the types parasitic upon Echinodermata, distinct genera should be retained.—*Comptes Rendus*, April 25, 1877.

On some Points in the Anatomy of the Rhynchobdellean Hirudinea.

By M. Georges Dutilleul.

1. *Dorsal organ of the* Glossiphoniæ.—In a recent memoir M. Nusbaum, of Warsaw, indicates the presence, in the embryo of *Glossiphonia complanata*, Linn. (*G. sexoculata*, Bergmann), of a provisional dorsal organ which had escaped the notice of his predecessors. This is a pyriform cavity, limited externally by the raised ectodermic lamina and internally by the somatic mesoderm. The ectodermic cells bear long appendages which serve for the reciprocal attachment of the young animals. This organ soon disappears, according to the author, without leaving any traces. M. Nusbaum adds no comment to his description.

Having, in the course of my investigations, had the opportunity of checking the author's description and ascertaining its perfect correctness, the question arose, whether nothing of the same kind exists in the embryos of other species of the genus *Glossiphonia*, and particularly in that of *G. bioculata*, Bergm., which, in the adult state, bears a characteristic dorsal organ. My investigations of this species enabled me to ascertain that its embryo presents, in the very place of the dorsal organ of the adult, a formation analogous to that described by M. Nusbaum in the embryo of *G. sexoculata*. The embryos of *G. marginata*, Müll., are also provided with this organ, which, in them as in *G. sexoculata*, is provisional. From these observations we may conclude that the provisional dorsal organ of Nusbaum in the species *sexoculata* and *marginata* represents the permanent dorsal organ of the species *bioculata*.

As regards the ultimate fate of this provisional organ I have several times been able to find traces of it in the adult animals,

Thus, in sections of the adult *G. sexoculata*, I have observed in its place a strongly pigmented depression of the integument.

The constitution of the dorsal organ of *G. bioculata*, which in reality is only a plate of chitine buried in a depression of the skin, leads to the rejection of the denominations "dorsal gland" (Moquin-Tandon), "yellowish-brown spot" (Budge), and "red spot" (Robin), which have been applied to this formation by the authors who have examined it. It seems preferable to designate it by the name of the *dorsal chitinous plate*.

2. *Male apparatus of* G. sexoculata.—The data which we possess as to the male apparatus of *G. sexoculata* did not enable us to bring this apparatus into the very homogeneous series of the other species of the genus. The most recent memoir on the subject (Robin, 1862) still shows it as formed on each side of a simple tube, bent into a U, terminating on the one hand in a free point in the anterior region of the body, and on the other at the male genital aperture, after having been dilated into a sac for the spermatophores. Very numerous fine dissections have enabled me to ascertain that the outer branch of the U-shaped tube, instead of terminating in a free point, becomes bent back and attenuated, runs backward parallel to the axis of the body, and receives on its outer side the short deferent ducts of the ten testes of the corresponding side. This description enables us to bring the male apparatus of *G. sexoculata* into the series of forms already described by F. Müller, Budge, &c.

3. *Skin and Respiration in the Rhynchobdellea.*—Hitherto it has been assumed that the respiration of the Hirudinea is cutaneous, without investigating what differentiations this function might induce in the integument which is its seat. *Branchellion* alone had attracted some attention. I have examined whether there are not, in the series of the Rhynchobdellea, some particular arrangements which would enable us to explain the origin of the branchiæ in the parasite of the Torpedo, and I have ascertained that, in the different genera, the integument presents curious adaptive modifications. The most interesting type in this respect is *Pontobdella*. In this genus, which is cylindrical (an isolated fact among the Hirudinea), the dermis is swelled into voluminous tubercles. The structure of these formations not having hitherto been noticed, it will be useful to indicate it here, especially as their anatomy exactly accounts for their physiology.

The tubercle is a dermal projection (not, as M. de Saint-Loup will have it, a mass of epithelial lamellæ) covered with epidermis and furnished with muscles of two kinds—retractors, parallel to the axis of the tubercle, and extensors, which are radial. Capillaries are abundant in them. The extent of the surface, the abundance of its vascularization, and the peculiar development of its musculature place this organ under conditions exceptionally favourable for hæmatosis, and render the tubercle a respiratory organ, already highly differentiated.

From this primitive arrangement, in which the tubercles are uniformly distributed over the whole periphery of the segment, are derived those of *Glossiphonia* and *Branchellion*. In the former case the less-developed tubercles are localized on the dorsal surface; in the second they are modified in their form and become marginal.—*Comptes Rendus*, July 11, 1887, p. 128.

Note on some Reptiles from Sumatra described by Bleeker in 1860.

By G. A. Boulenger.

Dr. Strauch has kindly drawn my attention to a paper by Bleeker, "Reptilien van Agam," Natuurk. Tijdschr. Nederl. Ind. xx. pp. 325–329 (1860), containing descriptions of new species, which was unfortunately overlooked by me whilst preparing the 'Catalogue of Lizards.' This omission is the more to be regretted as the actual types of the species described in that paper are preserved in the British Museum, where they were received in 1863. Dr. Günther, also overlooking Bleeker's contribution, and considering the names appended to the specimens as merely MS., redescribed in 1872 and 1873 the species which appeared new to him. The following is a list of Bleeker's species, with their identifications:—

1. *Calotes Luedekingii*, Blkr. = *Lophocalotes interruptus*, Gthr.

Should bear the name *Lophocalotes Luedekingii*.

2. *Lophyrus megalepis*, Blkr. = *Tiaris tuberculatus*, Gthr.

Should be called *Gonyocephalus megalepis*.

3. *Hemiphyllodactylus typus*, Blkr. = *Spathodactylus mutilatus*, Gthr.

4. *Gymnodactylus agamensis*, Blkr. = *G. marmoratus*, Kuhl.

5. *Chelomeles sumatrensis*, Blkr. = *C. sumatrensis*, Gthr.

6. *Typhlina leucurus*, Blkr. = *Dibamus novæ-guineæ*, D. & B., ♀ (specimen *h* of Cat. Liz. p. 435).

7. *Tropidolepisma macrurus*, Blkr. = *Mabuia multifasciata*, Kuhl, *pull.*

8. *Calamaria agamensis*, Blkr. = *C. Schlegeli*, D. & B.